EXHIBIT A:
Los Alamos National Laboratory Individual Stormwater Permit
NPDES Permit No. NM0030759
Settlement Conditions, SWQB 20-78
December 6, 2021

The following settlement conditions ensure that discharges allowed under the National Pollutant Discharge Elimination System (NPDES) permit will comply with State of New Mexico water quality standards (WQS) adopted in accordance with Section 303 of the Clean Water Act (CWA) and the New Mexico Water Quality Act [NMSA 1978, §§ 74-6-1 to -17]. State of New Mexico (State) WQS are codified in Title 20, Chapter 6, Part 4 of the New Mexico Administrative Code (20.6.4 NMAC), *Standards for Interstate and Intrastate Surface Waters*, as amended by the New Mexico Water Quality Control Commission (WQCC) on May 22, 2020 and approved by the U.S. Environmental Protection Agency (EPA or USEPA) as of July 24, 2020. Additional state WQS are published in Title 20, Chapter 6, Part 2 of the New Mexico Administrative Code (20.6.2 NMAC), *Ground and Surface Water Protection*, as amended by the WQCC on December 21, 2018.

References to "the permit" are to the November 27, 2019 Los Alamos National Laboratory (LANL) - Storm Water Individual Permit - Draft NPDES Permit No. NM0030759.

These settlement conditions include appendices to assist in organizing information related to the conditions included below. The appendices are as follows:

- Appendix 1: Soil Screening Flow Chart
- Appendix 2: Proposed Site deletions to the draft permit
- Appendix 3: Sites conditioned for addition to the draft permit
- Appendix 4: Target Action Levels (TALs) conditioned for addition to the draft permit
- Appendix 5: Sediment Decision Tree

Condition #1 (SIP Changes):
The Permittees shall consult with the New Mexico Environment Department (NMED) prior to sending the Sampling Implementation Plan (SIP) updates to EPA for review. If a CWA §303(d)/§305(b) Integrated List of Assessed Surface Waters listed impairment is identified as being a Site-related pollutant, then Permittees shall add it to the SIP. The initial SIP shall be publicly noticed for 30 days. EPA should add an approval process for proposed SIP changes after initial SIP implementation.

Condition #2 (Monitoring Requirements):
TALs shall be added to the permit based on additional or new information. For example, if the receiving waterbody is impaired for a specific constituent, and that constituent was a material historically managed at the Site, the constituent shall be monitored in stormwater. In addition, consistent with Part I.C.2 of the permit (Site Specific Demonstration), if a constituent is present in soils above screening levels, it shall be monitored in stormwater. Specific updates on various TALs are required, as detailed below.

1. Consistent with the updated hardness data submitted with the Permittees' comments, the TAL table in Appendix C of the draft permit must be adjusted slightly to the following:

Major Canyon	Dissolved Hardness (mg/L)	Total Recoverable Aluminum (ug/L)	Dissolved Cadmium (ug/L)	Dissolved Chromium III (ug/L)	Dissolved Copper (ug/L)	Dissolved Lead (ug/L)	Dissolved Nickel (ug/L)	Dissolved Silver (ug/L)	Dissolved Zinc (ug/L)
Ancho	37.2	883	0.711	253	5.29	21.7	203	0.587	65.1
Chaquehui	26.9	566	0.539	194	3.90	15.1	154	0.336	48.5
Los Alamos/ Pueblo	33.5	765	0.650	233	4.80	19.3	186	0.490	59.2
Mortandad	29.5	643	0.583	210	4.25	16.7	167	0.394	52.7
Pajarito	30.2	664	0.595	214	4.35	17.2	170	0.410	53.9
Sandia	43.0	1077	0.804	285	6.07	25.5	229	0.753	74.3
Water/ Cañon de Valle	47.7	1241	0.879	311	6.69	28.6	250	0.900	81.6

2. In the proposed permit, in Part I.B (Applicable Target Action Levels), the following footnote shall be added to the TAL table for monitoring requirements to specify sample collection procedures for total recoverable aluminum:

   The acute and chronic aquatic life criteria for aluminum are based on analysis of total recoverable aluminum in a sample that is filtered to minimize mineral phases as specified by the department. If stream turbidity is greater than 30 NTUs, the sample must be filtered using a 10-µm filter prior to acidification. If there are equipment problems prohibiting the measurement of turbidity in the field and the water has any cloudiness as determined by visual inspection, then the total recoverable aluminum sample should be filtered using a 10-µm filter.

Condition #3 (Site-Related Impairments):

Under Part I.B.1.c (Collection of Partial Samples) of the permit, NMED requires that the priority list for each Site include pollutants identified on the CWA §303(d)/§305(b) Integrated List of Assessed Surface Waters that are determined to be Site-related. The table below details the 2020-2022 Integrated List findings for each waterbody located within LANL.

The Permittees are required to monitor for applicable pollutants at Sites discharging to impaired and water quality-limited waters (see table below) if the pollutants are determined to be Site-related, as demonstrated under Part I.C.2 of the permit (Site Specific Demonstration). The Permittees shall document the impaired pollutants listed below on the priority list for each Site in the SIP and shall prioritize these pollutants for analysis in the event a partial sample is collected. Additionally, if there are insufficient data to determine if a pollutant causing an impairment is Site-related or if there are pollutants of concern (POCs) added during the SIP process that were not collected during the previous permit term, the Permittees shall prioritize analysis of the pollutants causing impairments and the added POCs in the event a partial sample is collected.

Canyon Name	**Waterbody Segment**	**2020-2022 Impairments (CWA §303d)**
Acid	20.6.4.98	Pueblo to headwaters: adjusted gross alpha, polychlorinated biphenyls (PCBs), dissolved copper, total recoverable aluminum
Ancho	20.6.4.128	• North Fork to headwaters: PCBs • Rio Grande to North Fork Ancho: PCBs, total mercury
Arroyo de la Delfe	20.6.4.128	Pajarito to headwaters: dissolved copper, PCBs, total recoverable aluminum, adjusted gross alpha
Bayo	20.6.4.98	San Ildefonso boundary to headwaters: Not assessed.

Canyon Name	**Waterbody Segment**	**2020-2022 Impairments (CWA §303d)**
Canada del Buey	20.6.4.128	within LANL: PCBs, adjusted gross alpha
Canon de Valle	20.6.4.126 (perennial), 20.6.4.128	• LANL gage E256 to Burning Ground Spring: PCBs • below LANL gage E256: adjusted gross alpha • upper LANL boundary to headwaters: PCBs, adjusted gross alpha
Chaquehui	20.6.4.128	Within LANL: PCBs
DP	20.6.4.128	• Los Alamos Canyon to grade control: PCBs, total recoverable aluminum, adjusted gross alpha • Grade control to upper LANL boundary: dissolved copper, PCBs, total recoverable aluminum, adjusted gross alpha
Fence	20.6.4.128	Not assessed.
Graduation	20.6.4.98	Pueblo Canyon to headwaters: PCBs, dissolved copper
Los Alamos	20.6.4.128	• DP to Upper LANL boundary: PCBs, total recoverable cyanide, total recoverable selenium, adjusted gross alpha, total mercury • NM-4 to DP Canyon: adjusted gross alpha, PCBs, total recoverable aluminum, total recoverable cyanide, radium 226+228, total mercury
Mortandad	20.6.4.128	within LANL: adjusted gross alpha, PCBs, dissolved copper, total mercury
North Fork Ancho	20.6.4.128	Ancho Canyon to headwaters: adjusted gross alpha, PCBs
Pajarito	20.6.4.126 (Arroyo de la Delfe to Starmers), 20.6.4.128	• Arroyo de la Delfe to Starmers Spring: fully supporting • Within LANL above Starmers Gulch: total recoverable aluminum, adjusted gross alpha • Lower LANL boundary to Two Mile: PCBs, total recoverable aluminum, adjusted gross alpha, total recoverable cyanide, dissolved copper • Two Mile to Arroyo de la Delfe: PCBs, dissolved silver, dissolved copper, adjusted gross alpha
Potrillo	20.6.4.128	above Water Canyon: adjusted gross alpha
Pratt	20.6.4.128	Not assessed.
Pueblo	20.6.4.98	• Acid Canyon to headwaters: PCBs, total recoverable aluminum, adjusted gross alpha, dissolved copper • Los Alamos Canyon to Los Alamos WWTP: adjusted gross alpha, PCBs, total recoverable aluminum, total recoverable selenium • Los Alamos WWTP to Acid Canyon: PCBs, adjusted gross alpha
Rendija	20.6.4.98	Guaje Canyon to headwaters: Not assessed
Sandia	20.6.4.126 (Sigma to Outfall 001), 20.6.4.128	• Sigma Canyon to NPDES Outfall 001: total recoverable aluminum, PCBs, dissolved copper, temperature • within LANL below Sigma: PCBs, total recoverable aluminum, adjusted gross alpha, total mercury, dissolved copper
South Fork Acid	20.6.4.98	Acid Canyon to headwaters: adjusted gross alpha, PCBs, dissolved copper

Canyon Name	**Waterbody Segment**	**2020-2022 Impairments (CWA §303d)**
Ten-Site	20.6.4.128	Mortandad to headwaters: adjusted gross alpha, PCBs.
Three Mile	20.6.4.128	Pajarito to headwaters: adjusted gross alpha
Two Mile	20.6.4.128	Pajarito to headwaters: adjusted gross alpha, PCBs, total recoverable aluminum, dissolved copper
Walnut	20.6.4.98	Pueblo Canyon to headwaters: PCBs, dissolved copper
Water	20.6.4.126 (Area-A Canyon to SR 501), 20.6.4.128	• Area-A Canyon to NM 501: fully supporting • Within LANL below Area-A Canyon: total recoverable aluminum, PCBs, adjusted gross alpha, total mercury • Within LANL above NM 501: not assessed

Condition #4 (Additional TALs):
Due to observed levels of constituents in soil data and their potential use during historical industrial activities and associated exposure to precipitation, NMED recommends EPA evaluate additional monitoring requirements in the final permit if the constituents are determined to be Site-related pollutants of concern according to the forthcoming Site Specific Demonstration, as demonstrated under Part I.C.2 of the permit and noted in the Soil Screening Flow Chart (Appendix 1 of EXHIBIT A).

NMED requires additional TALs for Site-related constituents be added to the permit (see Appendix 4 of EXHIBIT A). EPA may set additional TALs or add constituents for evaluation through the SIP process described in Condition #1.

Condition #5 (Site Deletions):
Sites shall not be deleted from the permit unless the Permittees demonstrate that they can be deleted in accordance with the permit requirements: (a) no industrial activities took place at the Site, (b) Site-related pollutants of concern have never been or will not be exposed to stormwater, (c) installation of permanent control measures results in no exposure, (d) removal of soil containing Site-related pollutants of concern, (e) data evaluated through the Site Specific Demonstration process shows that stormwater and surface soil do not exceed levels of concern, or (f) where the Site meets the no discharge requirements specified in the permit.

Please refer to Appendix 2 of EXHIBIT A for a comprehensive summary of Sites as compared to deletion requests by both EPA and the Permittees.

Condition #6 (Additions of Sites to the Permit):
Sites noted in Appendix 3 of EXHIBIT A must be added to the permit based on NMED observations of industrial materials exposed to stormwater through the Sampling Implementation Plan investigations in 2016-2018.

Condition #7 (No Exposure Qualifications):
40 CFR 122.26(g) requires that Permittees claiming “no exposure” of industrial materials to stormwater must complete and sign a certification that there are no discharges of contaminated stormwater. The signed certification must be re-submitted to EPA every five years. The regulation also requires notification to any subsequent Municipal Separate Storm Sewer System (MS4) operator, so there must be a requirement in this permit to copy the certification to the MS4 partners in the upcoming MS4 permit. Sites which are certified in this manner qualify for long-term stewardship.